

**REMARKS**

Claims 11, 22, 29, 30, 40, 44, 45, 47 and 51 have been amended to improve form. Claims 1-51, 53, 54, 56, 57, 59, 61 and 62 remain pending in this application.

The applicants' representative wishes to thank Examiner Phan for the courtesy extended in the personal interview on July 31, 2007 and in the follow up telephone interview on August 31, 2007. A brief summary of each of the interviews is provided below.

During the personal interview on July 31, 2007, the applicants' representative discussed the differences between the pending claims and the cited art. In particular, the term "facility related event" included in a number of the independent claims was discussed with respect to the cited art. The Examiner indicated that he would review the prior art and the pending claims and provide any suggestions, if appropriate, that would aid in overcoming the pending rejections.

During the telephone interview of August 31, 2007, the Examiner provided a suggestion with respect to the pending claims that he indicated would overcome the cited art of record. More particularly, the Examiner indicated that adding further clarification to the term "facility related event" to indicate that the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device would overcome the outstanding rejections. The applicants' representative thanked the Examiner for his suggestion and indicated that the applicants would determine whether to incorporate the Examiner's suggestion in any subsequent response.

Returning to the Office Action, the applicants acknowledge, with appreciation, the indication that claims 1-10 and 32-39 have been allowed and that claims 14-21 and 25

would be allowable if rewritten in independent form to include all the features of their respective base claims and any intervening claims.

Support for the amendments to claims 11, 22, 29, 30, 40, 44, 45, 47 and 51 can be found at, for example, col. 7, lines 43-58 of Cardy et al. (U.S. Patent No. 6,041,109; hereinafter the '109 patent). For the Examiner's convenience, a marked-up copy of the Amendment showing the current changes (with respect to the previous Amendment entered with the Request for Continued Examination filed February 20, 2007) to the claims is provided as an appendix to this Amendment.

Claims 11-13, 22-24, 26-31, 40-46, 51, 53, 54, 56, 57, 59, 61 and 62 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Christie et al. (U.S. Patent 6,181,703; hereinafter Christie). The rejection is respectfully traversed.

Claim 11 recites an apparatus comprising switch intelligence. Claim 11, amended recites that the switch intelligence is configured to receive notification of a facility related event associated with a call from a switch fabric, wherein the switch intelligence is implemented in a separate network element from a network element implementing the switch fabric and the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device.

As discussed above, during the telephone interview on August 31, 2007, the Examiner indicated that this feature would overcome the pending rejection based on Christie. Accordingly, the applicants respectfully request withdrawal of the rejection and allowance of claim 11.

Claims 12, 13 and 56 depend from claim 11 and are believed to be allowable for at least the reasons claim 11 is allowable. Accordingly, withdrawal of the rejection and allowance of claims 12, 13 and 56 are respectfully requested.

Claims 22, 29, 30, 40, 44, 45 and 51, as amended, recite that the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device. As discussed above, during the telephone interview on August 31, 2007, the Examiner indicated that this feature would overcome the pending rejection based on Christie. Accordingly, the applicants respectfully request withdrawal of the rejection and allowance of claims 22, 29, 30, 40, 44, 45 and 51.

Claims 23, 24, 26-28, 31, 41-43, 46, 53, 54, 57, 59, 61 and 62 variously depend on claims 22, 29, 30, 40, 45 and 51 and are believed to be allowable for at least the reasons their respective independent claims are allowable. Accordingly, withdrawal of the rejection and allowance of claims 23, 24, 26-28, 31, 41-43, 46, 53, 54, 57, 59, 61 and 62 are respectfully requested.

Claims 47-50 have been rejected under 35 U.S.C. § 102(e) as being anticipated by La Porta et al. (U.S. Patent No. 5,434,852; hereinafter La Porta). The rejection is respectfully traversed.

Claim 47 recites an apparatus comprising a call completion device for providing bearer functions. Claim 47, as amended, recites that the call completion device is configured to forward a facility related event associated with a call to the switch intelligence, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device.

As discussed above, during the telephone interview on August 31, 2007, the Examiner indicated that this feature would overcome the pending rejection based on La Porta. Accordingly, the applicants respectfully request withdrawal of the rejection and allowance of claim 47.

Claims 48-50 depend from claim 47 and are believed to be allowable for at least the reasons claim 47 is allowable. Accordingly, withdrawal of the rejection and allowance of claims 48-50 are respectfully requested.

### **CONCLUSION**

In view of the foregoing amendments and remarks, the applicants respectfully request withdrawal of the outstanding rejection and the timely allowance of this application. In the event that the application is not believed to be in condition for allowance, the Examiner is invited to contact the applicants' representative at the number shown below to expedite prosecution of this application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Attachment: Appendix showing  
current changes to claims

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APPENDIX

MARKED UP CLAIMS SHOWING CHANGES MADE WITH  
RESPECT TO PREVIOUS AMENDMENT ENTERED FEBRUARY 20, 2007

1. (previously presented) An apparatus in a telecommunications system,  
comprising:

a switch intelligence which provides control functions for a switch fabric, said  
switch intelligence being logically separated from said switch fabric and being  
implemented in a separate network element from said switch fabric, the switch  
intelligence being configured to:

process information received from the switch fabric, the information  
comprising a facility related event associated with a call,

maintain a call state associated with completing the call in accordance  
with a call model, the call model indicating how the information will be processed,

identify at least one point in call associated with completing the call, and  
forward a request for a telecommunications function in response to the  
identified at least one point in call;

a switch fabric proxy service for providing a normalized interface between said  
switch fabric and said switch intelligence for communications involving said switch  
fabric and interfacing to said switch intelligence with a uniform application program  
interface, wherein the normalized interface comprises any one of a plurality of vendor-  
specific interfaces associated with the switch fabric; and

a feature processor, said feature processor configured to:

receive the request for the telecommunications function, and

execute the telecommunications function in response to the received request.

2. (previously presented) The apparatus of claim 1, wherein said switch intelligence comprises:

facility service logic configured to represent bearer and signaling facilities of a party to the call, for interacting with said switch fabric proxy service to communicate with said switch fabric, the facility service logic configured to receive the facility related event and perform protocol processing on the information received from the switch fabric, wherein the facility related event comprises at least one of an off-hook indication, an on-hook indication or a wink.

3. (previously presented) The apparatus of claim 2, wherein said switch intelligence further comprises:

connection manager logic configured to forward connection information to the switch fabric, the connection information instructing the switch to establish physical connections to complete the call.

4. (previously presented) The apparatus of claim 1, wherein said switch intelligence comprises:

call segment logic configured to:  
represent a status of at least two call halves associated with completing the call in accordance with the call model, and

perform call processing for each of the at least two call halves.

5. (previously presented) The apparatus of claim 1, wherein said switch intelligence comprises:

a call processing creation environment, said call processing creation environment interacting with said switch intelligence for modifying said call model without modifying the switch fabric.

6. (previously presented) The apparatus of claim 4, wherein said switch intelligence further comprises:

a call processing creation environment, said call processing creation environment interacting with said call segment logic, for modifying said call model.

7. (previously presented) The apparatus of claim 2, wherein said switch intelligence further comprises:

a call processing creation environment, said call processing creation environment interacting with said facility service logic for creating new facility models.

8. (previously presented) The apparatus of claim 4, wherein said switch intelligence further comprises:

a call processing creation environment, said call processing creation environment interacting with said call segment logic, for creating new call models.



9. (previously presented) An apparatus comprising:

a switch-fabric proxy service for providing a normalized interface between a switch fabric and a switch intelligence for communications involving said switch fabric by interfacing to said switch fabric with any one of a plurality of application programming interfaces, wherein the switch fabric and the switch intelligence are implemented in separate network elements; and

the switch intelligence, the switch intelligence being configured to:

receive information from the switch fabric,

perform call processing in accordance with a call model using the received information,

maintain a status of at least two call halves associated with completing the call in accordance with the call model, and

direct the switch fabric to make physical connections for each of the at least two call halves to complete the call.

10. (previously presented) An apparatus according to claim 9, wherein said plurality of application programming interfaces is at least one of vendor-specific or switch-fabric-specific.

11. (currently amended) An apparatus comprising:

switch intelligence configured to:

receive notification of a facility related event associated with a call from a switch fabric, wherein the switch intelligence is implemented in a separate network element from a network element implementing the switch fabric and the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device,

execute a call state machine, the call state machine being responsive to the notification of the facility related event and representing processing of the call as at least one call segment, wherein the at least one call segment corresponds to a call half,

provide an association between the at least one call segment and at least one physical device associated with completing the call, and

provide connection information to the switch fabric based on the association.

12. (previously presented) An apparatus according to claim 11, wherein said network element implementing the switch intelligence is physically separated from said network element implementing the switch fabric and is coupled to the network element implementing the switch fabric via a communications network.

13. (previously presented) An apparatus according to claim 11, wherein the network element implementing said switch intelligence is logically separated from the network element implementing said switch fabric.

14. (previously presented) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service interfaces to said switch fabric with any one of a plurality of application programming interfaces and interfaces to said switch intelligence with a uniform application programming interface.

15. (previously presented) An apparatus according to claim 14 wherein each of said plurality of application programming interfaces comprises at least one of a vendor-specific application programming interface or a switch-fabric-specific application programming interface.

16. (previously presented) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates switch-fabric communications into switch-intelligence communications.

17. (previously presented) An apparatus according to claim 16 wherein said switch-fabric communications are at least one of vendor-specific or switch-fabric-specific.

18. (previously presented) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates switch-intelligence communications into switch-fabric communications.

19. (previously presented) An apparatus according to claim 18, wherein said switch-fabric communications are at least one of vendor-specific or switch-fabric-specific.

20. (previously presented) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates switch-fabric communications into communications defined according to a uniform interface.

21. (previously presented) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and a switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates communications defined according to a uniform interface into switch-fabric communications.

22. (currently amended) An apparatus comprising:  
a switch intelligence for providing control functions to at least one switch fabric, the switch intelligence comprising:

processing logic configured to:

receive information from the at least one switch fabric, the information including a facility related event associated with a call, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device.

process the received information,  
maintain call states in accordance with a call model for at least one party involved in the call, and  
provide connection information to the at least one switch fabric for completing the call.

23. (previously presented) An apparatus according to claim 22 wherein said switch intelligence is one of logically separated or physically separated from said at least one switch fabric, the processing logic being further configured to:

identify at least one point in the call where a telecommunications function is required, and

send a request for the telecommunications function to a processor in response to the identified at least one point in the call.

24. (previously presented) An apparatus according to claim 23, further comprising:

a processor executing the telecommunications function in response to the request.

25. (previously presented) An apparatus according to claim 22, further comprising:

a switch fabric proxy for providing a plurality of application programming interfaces for communications between the at least one switch fabric and the switch intelligence, wherein each of said plurality of application programming interfaces comprises at least one of a vendor-specific application programming interface or a switch-fabric-specific application programming interface.

26. (previously presented) An apparatus according to claim 22 wherein said switch intelligence provides control functions to a plurality of switch fabrics.

27. (previously presented) An apparatus according to claim 22 wherein said switch intelligence further comprises at least one of a facility service, a call connection manager service, or a call segment instance service.

28. (previously presented) An apparatus according to claim 27 wherein said at least one of a facility service, a call connection manager service, or a call segment instance service comprises a call segment instance service, the call segment instance service configured to maintain the call states for the at least one party involved in the call.

29. (currently amended) An apparatus, comprising:  
means for receiving switch-fabric communications from a switch-fabric, the switch-fabric communications including a facility related event associated with a call, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at telephone device;

means for processing the switch-fabric communications, wherein the means for processing is configured to maintain call states in accordance with a call model for at least one party involved in the call and generate connection information for completing the call; and

means for translating the connection information into switch-fabric communications for use by a switch fabric.

30. (currently amended) An apparatus, comprising:

means for translating switch-fabric communications into communications defined according to a uniform switch-intelligence interface;

means for processing the switch fabric communications comprising facility related event information associated with a call, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device, the means for processing being configured to:

maintain call states for at least one party involved in the call in accordance with a call model, and

execute the call model to generate connection information for completing the call; and

means for translating the communications defined according to the uniform switch-intelligence interface into switch-fabric communications.

31. (previously presented) The apparatus according to claim 30, further comprising:

means for translating communications defined according to the uniform interface into switch-intelligence communications; and

means for translating switch-intelligence communications into communications defined according to a uniform interface.

32. (previously presented) An apparatus comprising:

a switch-fabric proxy service that is capable of at least one of translating switch-fabric communications into switch-intelligence communications, translating the switch-



intelligence communications into the switch-fabric communications, translating the switch-fabric communications into communications defined according to a uniform switch-intelligence interface, or translating the communications defined according to a uniform switch-intelligence interface into the switch-fabric communications; and

a switch intelligence implemented in at least one network element, the at least one network element being a separate network element from a network element implementing a switch-fabric that is coupled to the switch-fabric proxy service, the switch intelligence being configured to:

execute a call model to generate connection information for completing a call corresponding to a request received at a switch fabric,

maintain call states for each party involved in the call in accordance with the call model, and

forward the connection information to the switch fabric via the switch-fabric proxy service.

33. (previously presented) An apparatus according to claim 32, wherein said switch-fabric proxy service includes a normalized interface between the switch fabric and the switch intelligence.

34. (previously presented) The apparatus according to claim 32, wherein said at least one network element implementing the switch intelligence is one of logically separated or physically separated from the network element implementing the switch

fabric and is coupled to the network element implementing the switch fabric via a communications network.

35. (previously presented) An apparatus according to claim 32, wherein the switch fabric includes said switch-fabric proxy service.

36. (previously presented) An apparatus according to claim 32, wherein the switch intelligence is further configured to:

maintain the call model, the call model affecting how calls received by the switch fabric will be processed and wherein the call model is modifiable at the switch intelligence without modifying the switch fabric.

37. (previously presented) An apparatus according to claim 32, wherein said switch-fabric proxy service includes an application programming interface for interfacing with the switch fabric.

38. (previously presented) An apparatus according to claim 32, wherein said application programming interface is at least one of a vendor-specific interface or a switch-fabric-specific interface.

39. (previously presented) An apparatus according to claim 32, wherein said switch-fabric proxy service includes an application programming interface for interfacing with the switch-intelligence.

40. (currently amended) An apparatus comprising:  
a switch intelligence network element for controlling a switch fabric network element, wherein said switch intelligence network element comprises:  
processing logic configured to:  
receive notification information comprising a facility related event associated with a call from the switch fabric network element, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device, and  
perform call half processing for at least one party associated with the call in response to the notification information and in accordance with a call model.

41. (previously presented) An apparatus according to claim 40, wherein said processing logic is further configured to:  
perform the call half processing in accordance with a call model, the call model representing at least one of an Advanced Intelligent Network (AIN) call model, an International Telecommunications Union (ITU) call model or a call model created by a service provider.

42. (previously presented) The apparatus according to claim 40, wherein said switch intelligence network element includes at least one of a first application programming interface communicable with a switch-fabric proxy service or a second

application programming interface communicable with a feature processor that executes at least one telecommunications function.

43. (previously presented) The apparatus according to claim 40, further comprising at least one application programming interface communicable between at least one of a facility service, a call connection manager service, or a call segment instance service and another of said at least one of a facility service, a call connection manager service, or a call segment instance service.

44. (currently amended) An apparatus comprising:  
a feature processor for executing at least one telecommunications function; and  
switch intelligence configured to:

receive facility related event data associated with a call from a switch fabric, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device,

perform call half processing associated with at least one party to the call in response to the facility related event data and in accordance with a call model, and

provide connection information to an entity that received the call, wherein the connection information identifies physical connections to complete the call, wherein the switch intelligence is implemented in at least one network element, the at least one network element being a separate network element from the entity that received the call.

45. (currently amended) An apparatus for controlling a switch fabric, the apparatus being implemented in at least one network element, the at least one network element being separate from the switch fabric, the apparatus comprising:

logic for processing a facility related event received from the switch fabric in accordance with a call model, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device,

logic for performing call half processing for at least one party involved in the call in response to the facility related event and in accordance with the call model, and  
logic for forwarding connection information to the at least one switch fabric.

46. (previously presented) The apparatus of claim 45, further comprising:  
interface logic including a first interface for communications between the apparatus and the switch fabric.

47. (currently amended) An apparatus, comprising:  
a call completion device for providing bearer functions, said call completion device performing communications with a switch intelligence that is implemented in a separate network element from said call completion device, the call completion device being configured to:

forward a facility related event associated with a call to the switch intelligence, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device, and

receive bearer connection information from the switch intelligence in accordance with a call model executed by the switch intelligence.

48. (previously presented) The apparatus of claim 47, wherein the switch intelligence comprises a call state model, and wherein the call completion device communicates with the switch intelligence to affect a call state.

49. (previously presented) The apparatus of claim 48, wherein the call state is represented in the call state model.

50. (previously presented) The apparatus of claim 47, further comprising:  
a switch fabric proxy service for providing an application programming interface for communications between the call completion device and the switch intelligence.

51. (currently amended) An apparatus, comprising:  
logic configured to receive information from a switch fabric that received a request for making a call, the information comprising a facility related event, wherein the facility related event is received as raw or unprocessed data which is associated with user activity at a telephone device;

logic configured to perform call half processing for at least a first party or a second party associated with the call in response to the facility related event and in accordance with a call model;

logic configured to generate connection information for the entity that received the request; and

logic configured to forward the connection information to the entity that received the request.

52. (canceled)

53. (previously presented) The apparatus of claim 51, wherein the apparatus is implemented in a network element that is separate from the entity that received the request.

54. (previously presented) The apparatus of claim 51, wherein the logic configured to perform call half processing maintains call states associated with completing the call in accordance with a call model.

55. (canceled)

56. (previously presented) The apparatus of claim 11, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

57. (previously presented) The apparatus of claim 22, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

58. (canceled)

59. (previously presented) The apparatus of claim 29, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

60. (canceled)

61. (previously presented) The apparatus of claim 40, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

62. (previously presented) The apparatus of claim 45, wherein the facility related event comprises at least one of on-hook, off-hook or wink.